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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,750	09/11/2003	Min-Hwan Woo	031073	3471
23850 7590 01/24/2008 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER MILORD, MARCEAU	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/659,750

**Applicant(s)**

WOO ET AL.

**Examiner**

Marceau Milord

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 17-22 and 27 is/are rejected.
- 7) ☒ Claim(s) 5-16 and 23-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____   | 6) <input type="checkbox"/> Other: _____                          |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 17-22, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinzalow et al (US Patent No 6052603) in view of Sadler (US Patent No 6058319) and Yang (US Patent No 6813528 B1).

Regarding claims 1-2, Kinzalow et al discloses a stereophonic apparatus (figs. 7-10), comprising: an audio signal (412 of fig. 8) generating unit for generating an audio signal (col. 1, lines 53-65; col. 11, lines 54-60); a sound signal (fig. 8) controlling unit for outputting a sound signal to a sound signal input terminal of an external sound apparatus and controlling path of a sound signal output from a sound signal output terminal of said external sound apparatus (col. 2, lines 22-59; col. 11, line 61-col. 12, line 34 ; col. 12, line 42- col. 13, line 9; col. 13, line 49- col. 14, line 23).

However, Kinzalow et al does not specifically disclose a mixing unit for generating a mixed sound signal by mixing an audio signal input from said audio signal generating unit and a sound signal input through said sound signal controlling unit; an audio amplifying unit for amplifying a mixed sound signal input from said mixing unit; and an output unit for outputting a mixed sound signal amplified by said audio amplifying unit; wherein said audio signal generating unit includes at least one of a radio receiving unit which generates an audio signal by receiving a radio signal and a media playing unit which generates an audio signal by playing media.

On the other hand, Sadler, from the same field of endeavor, discloses a mobile radiotelephone system that includes a hands free kit, which allows the audio signal to be output through a car stereo system. The mobile radiotelephone system includes a hand held unit, a cassette adapter, and a coupling unit. The hand held unit is a fully functional mobile telephone including a receiver and transmitter capable of transmitting and receiving voice and data signals. The cassette adapter is configured to load into a cassette player of a car stereo system. The cassette adapter includes a record head for contacting a playback head in the cassette player when the cassette adapter is loaded into the cassette player. A coupling unit attached to the hand held unit and includes a coupling circuit for electrical connecting the cassette adapter to the hand held unit. When the cassette adapter is coupled to the hand held unit, audio signals are output from hand held unit to the cassette adapter and picked up by the cassette player (col. 1, lines 45-64; col. 3, lines 24-65; col. 5, lines 10-43). Furthermore, the coupling circuit electrically connects the cassette adapter and external microphone to the mobile unit. The coupling circuit includes an input amplifier to amplify the input from the external microphone, an output amplifier to amplify

the output from the mobile unit, and a detection circuit to detect when the cassette adapter is connected to the coupling circuit. An audio device, such as CD player may be plugged into the auxiliary input. In addition, the cradle adapter would include a switching circuit to select the audio signal, which is output through jack to the cassette adapter (col. 4, lines 13-20; col. 6, lines 7-40).

Yang also discloses a method for outputting an audio signal of a laptop computer to a first speaker in the laptop computer and to a second speaker in a docking station. It includes a first controller implemented in the laptop computer for filtering a high frequency band component and a low frequency band component from the audio signal, for mixing the filtered signals, and for outputting the mixed signal to the first speaker when the laptop computer is not coupled with the docking station, and otherwise, filtering only a high frequency band component from the audio signal and outputting the filtered signal to the first speaker. A second controller is implemented in the docking station for receiving the audio signal from the laptop computer, for filtering a low frequency band component from the received audio signal, and for outputting the filtered signal to the second speaker when the laptop computer is coupled with the docking station (col. 2, lines 1-23; col. 2, lines 50-67). Furthermore, the analog mixer mixes the high and low frequency band components respectively output from the high frequency band amplifier and the first low frequency band amplifier, and outputs the mixed signal to the system speakers. In addition, the docking station processes the audio signal output from the laptop computer while being coupled with the laptop computer, and outputs the result to the speakers (figs. 4-5; col. 3, line 42-col. 4, line 53; col. 5, lines 4-53). It is considered that the audio signal which includes a radio receiving unit which converts radio signals to audio signal and a media playing unit which

generates audio signal by playing media. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to apply the technique of Yang to the modified system of Sadler and Kinzalow in order to provide an audio system for selecting speakers and amplifiers in both a laptop computer and a docking station when the laptop computer is coupled to the docking station.

Regarding claim 3, Kinzalow et al as modified discloses a stereophonic apparatus (figs. 7-10), wherein said sound signal output from said sound signal output terminal of said external sound apparatus is an amplified signal in said external sound apparatus (col. 2, lines 18-49; col. 11, line 54- col. 12, line 17).

Regarding claim 4, Kinzalow et al as modified discloses a stereophonic apparatus (figs. 7-10), wherein said external sound apparatus is a mobile phone (col. 6, lines 9-21; col. 11, lines 1-13).

Regarding claims 17-18, 27, Kinzalow et al discloses an apparatus for controlling sound signal (figs. 7-10), coupled to a stereophonic apparatus and a mobile phone (312 of fig. 7), comprising; a microphone unit (368 of fig. 7), having one end connected to a sound signal input terminal of said mobile phone and other end grounded, which converts a voice signal into a sound signal and transmits said sound signal input terminal of said mobile phone (col. 1, lines 53-65; col. 11, lines 54-60; col. 2, lines 22-59; col. 11, line 61-col. 12, line 34; col. 12, line 42- col. 13, line 9; col. 13, line 49- col. 14, line 23)..

However, Kinzalow et al does not specifically disclose a calling mode conversion switch, having one end connected to said sound signal input terminal of said mobile phone and other end grounded, which switches an operating condition of said mobile phone to a calling mode or a call

waiting mode; and a secret call switch for switching a sound signal input from a sound signal output terminal of the mobile phone to a mixing unit of said stereophonic apparatus or a secret call output unit.

On the other hand, Sadler, from the same field of endeavor, discloses a mobile radiotelephone system that includes a hands free kit, which allows the audio signal to be output through a car stereo system. The mobile radiotelephone system includes a hand held unit, a cassette adapter, and a coupling unit. The hand held unit is a fully functional mobile telephone including a receiver and transmitter capable of transmitting and receiving voice and data signals. The cassette adapter is configured to load into a cassette player of a car stereo system. The cassette adapter includes a record head for contacting a playback head in the cassette player when the cassette adapter is loaded into the cassette player. A coupling unit attached to the hand held unit and includes a coupling circuit for electrical connecting the cassette adapter to the hand held unit. When the cassette adapter is coupled to the hand held unit, audio signals are output from hand held unit to the cassette adapter and picked up by the cassette player (col. 1, lines 45-64; col. 3, lines 24-65; col. 5, lines 10-43). Furthermore, the coupling circuit electrically connects the cassette adapter and external microphone to the mobile unit. The coupling circuit includes an input amplifier to amplify the input from the external microphone, an output amplifier to amplify the output from the mobile unit, and a detection circuit to detect when the cassette adapter is connected to the coupling circuit. An audio device, such as CD player may be plugged into the auxiliary input. The audio output signal from the audio processing circuit is directed by switch to either the internal speaker in the mobile unit or to the coupling unit via connector. The switch selects the source of the audio input signals to the audio processing circuit. The switch also

selects between the internal microphone in the mobile unit and the external microphone attached to the coupling unit. In addition, the cradle adapter would include a switching circuit to select the audio signal, which is output through jack to the cassette adapter (col. 4, lines 4-20; col. 6, lines 7-40).

Yang also discloses a method for outputting an audio signal of a laptop computer to a first speaker in the laptop computer and to a second speaker in a docking station. It includes a first controller implemented in the laptop computer for filtering a high frequency band component and a low frequency band component from the audio signal, for mixing the filtered signals, and for outputting the mixed signal to the first speaker when the laptop computer is not coupled with the docking station, and otherwise, filtering only a high frequency band component from the audio signal and outputting the filtered signal to the first speaker. A second controller is implemented in the docking station for receiving the audio signal from the laptop computer, for filtering a low frequency band component from the received audio signal, and for outputting the filtered signal to the second speaker when the laptop computer is coupled with the docking station (col. 2, lines 1-23; col. 2, lines 50-67). Furthermore, the analog mixer mixes the high and low frequency band components respectively output from the high frequency band amplifier and the first low frequency band amplifier, and outputs the mixed signal to the system speakers. In addition, the docking station processes the audio signal output from the laptop computer while being coupled with the laptop computer, and outputs the result to the speakers (figs. 4-5; col. 3, line 42-col. 4, line 53; col. 5, lines 4-53). It is considered that the audio signal which includes a radio receiving unit which converts radio signals to audio signal and a media playing unit which generates audio signal by playing media. Therefore, it would have been obvious to one of



ordinary skill in the art, at the time the invention was made to apply the technique of Yang to the modified system of Sadler and Kinzalow in order to provide an audio system for selecting speakers and amplifiers in both a laptop computer and a docking station when the laptop computer is coupled to the docking station.

Regarding claim 19, Kinzalow et al as modified discloses an apparatus for controlling sound signal (figs. 7-10), coupled to a stereophonic apparatus and a mobile phone (312 of fig. 7), wherein said microphone unit comprises; a resistor having one end connected to said sound signal input terminal of said mobile phone; and a microphone having one end connected in series to said resistor and the other end grounded, and converting a voice signal into a sound signal (col. 5, lines 15-49; col. 7, line 46-col. 8, line 26).

Regarding claim 20, Kinzalow et al as modified discloses an apparatus for controlling sound signal (figs. 7-10), coupled to a stereophonic apparatus and a mobile phone (312 of fig. 7), wherein said resistor is a variable resistor (col. 8, lines 21-47).

Regarding claim 21, Kinzalow et al as modified discloses an apparatus for controlling sound signal (figs. 7-10), coupled to a stereophonic apparatus and a mobile phone (312 of fig. 7), wherein said microphone unit further comprises a diode of which anode is connected in series to said one end of said resistor and cathode is connected in series to said one end of said microphone (col. 7, line 59- col. 8, line 36).

Regarding claim 22, Kinzalow et al as modified discloses an apparatus for controlling sound signal (figs. 7-10), coupled to a stereophonic apparatus and a mobile phone (312 of fig. 7), wherein said microphone unit further comprises a diode of which anode is connected to said sound signal input terminal of said mobile phone and cathode is connected to said one end of

said resistor (col. 8, lines 21-63).

#### Allowable Subject Matter

3. Claims 5-16, 23-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Response to Arguments*

4. Applicant's arguments with respect to claims 1-4, 17-22, 27 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Marceau Milord  
Primary Examiner  
Art Unit 2618

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